

Amendments to the Claims

Please cancel Claims 5, 6, 9, 10, 12, 13 and 21 - 26. Please amend Claims 1, 4, 7, 8, 11, 14, 15, 16, 17 and 20. Please add new Claim 31. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) An ~~ultraviolet~~ electromagnetic radiation-absorbing particle comprising:
 - (a) a core; and
 - (b) a shell, wherein the shell encapsulates the core; ~~and~~wherein ~~either the core or the shell comprises a first~~ selected from the group consisting of TiN, ZrN and HfN, said material having a negative real part of the dielectric constant in a predetermined spectral band; and
wherein ~~either~~ the core comprises a material selected the group consisting of
 - ~~(i) the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material and having a negative real part of the dielectric constant in a predetermined spectral band; [[or]] and~~
 - ~~(ii) either the core or the shell comprises a refracting material with a refraction index greater than about 1.8.~~
2. (Original) The particle of claim 1 wherein said particle exhibits an absorption cross-section greater than 1 in a predetermined spectral band.
3. (Original) The particle of claim 1 wherein the particle is substantially spherical.
4. (Currently amended) The particle of claim 3 wherein the particle has a diameter from about ~~[[1]]~~ 0.1 nm to about ~~[[150]]~~ 300 nm.

5 - 6. (Cancelled)

7. (Currently amended) The particle of claim 1 wherein ~~either the core or the shell~~ the second conductive material is selected from a group consisting of Ag, Al, Mg, Cu, Ni, Cr, TiN, ZrN, and HfN, ~~Si, TiO₂, ZnO₂, Al₂O₃.~~

8. (Currently amended) The particle of claim [[1]] 7 ~~wherein both the core and the shell comprise conductive materials, and~~ wherein the materials of the core and the shell are selected so that the particle exhibits a peak of absorption in a range of wavelengths from about 200 nm to about [[320]] 750 nm.

9 - 10. (Cancelled)

11. (Currently amended) The particle of claim [[1]] 31 ~~wherein either the core or the shell comprises a refracting material with a refraction index greater than about 1.8, and wherein thickness of the shell and/or the size of the core are independently adjusted so that the particle exhibits a peak of absorption in a range of wavelengths from about 200 nm to about [[320]]~~ 750 nm.

12 - 13. (Cancelled)

14. (Currently amended) A method of manufacturing a particle that absorbs electromagnetic radiation ~~in the ultraviolet spectral band~~ comprising the step of encapsulating a core with a shell, wherein ~~either the core or the shell~~ comprises a first conductive material selected from the group consisting of TiN, ZrN and HfN, ~~said material having a negative real part of the dielectric constant in a predetermined spectral band;~~ and wherein ~~either~~ the core comprises a material selected from the group consisting of

(i) ~~the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material~~ and having a

negative real part of the dielectric constant in a predetermined spectral band [[; or]] and

~~(ii) either the core or the shell comprises a refracting material with a refraction index greater than about 1.8.~~

15. (Currently amended) The method of claim 14 wherein ~~the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material, and wherein~~ the first and the second conducting materials are selected so that the particle exhibits a peak of absorption in a desired spectral band.
16. (Currently amended) The method of claim 14 wherein ~~either the core or the shell~~ comprises a refracting material ~~with a refraction index greater than about 1.8, and~~ wherein the thickness of the shell and/or the size of the core ~~is selected~~ are independently adjusted so that the particles exhibits a peak of absorption in a desired spectral band.
17. (Currently amended) An electromagnetic radiation-absorptive material for substantially blocking passage of ~~the ultraviolet~~ a selected spectral band of radiation comprising:
 - (a) a carrier material; and
 - (b) a particulate material dispersed in the carrier material with a primary particle comprising a core and a shell encapsulating said core, and wherein ~~either the core or the shell~~ comprises a first conductive material selected from the group consisting of TiN, ZrN and HfN ~~; said material having a negative real part of the dielectric constant in a predetermined spectral band;~~ and wherein ~~either~~ the core comprises a material selected from the group consisting of
 - ~~(i) the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material~~ and having a negative real part of the dielectric constant in a predetermined spectral band; [[or]] and
 - ~~(ii) either the core or the shell comprises a refracting material with a refraction index greater than about 1.8.~~

18. (Original) The material of claim 17 wherein the carrier is selected from the group consisting of glass, polyethylene, polypropylene, polymethylmethacrylate, polystyrene, polyethylene terephthalate, and copolymers thereof.
19. (Original) The material of claim 17 further comprising one or more distinct particulate materials.
20. (Currently amended) The material of claim 17 wherein the material is selected from the group consisting of ink, paint, lotion, gel, film and solid.
- 21 - 26. (Cancelled)
27. (Original) The material of claim 17 wherein the material is a textile, textile-like, or a foam matrix selected from a group consisting of gauze, rayon, polyester, polyurethane, polyolefin, cellulose and its derivatives, cotton, orlon, nylon, and hydrogel polymeric materials.
28. (Original) The material of claim 27 wherein the material is attached to a self-adhering elastomeric bandage.
29. (Original) The material of claim 17 wherein the primary particles are further embedded in beads.
30. (Original) The material of claim 29 wherein the primary particles are individually embedded in substantially spherical beads.
31. (New) The particle of Claim 1 wherein the core comprises a refractive material selected from a group consisting of Si, TiO₂, ZnO₂ and Al₂O₃.